

SEQUENCE LISTING

<110> Institut Pasteur

<120> METHODS OF INHIBITING HELICOBACTER PYLORI

<130> B4306_AD/CAL

<150> 09/107,383

<151> 1998-06-30

<160> 16

<170> PatentIn Ver. 2.0

<210> 1

<211> 25

<212> DNA

<213> primer

<400> 1

tttgacttac tggggatcaa gcctg

25

<210> 2

<211> 34

<212> DNA

<213> adaptor

<400> 2

gatcatttat tcctccagat ctggaggaat aaat

34

<210> 3

<211> 29

<212> DNA

<213> primer

<400> 3

gaagatctct aggacttgta ttgttatat

29

<210> 4

<211> 23

<212> DNA

<213> primer

<400> 4

tatcaacggt ggtatatcca gtg

23

<210> 5

<211> 23

<212> DNA

<213> primer

<400> 5

gcagttattg gtgcccttaa acg

23

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<211> 23

<212> DNA

<213> primer

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ccggtgatat totcatttta gcc 23

<210> 7
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 <212> DNA
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<400> 7
 gcgagtatgt aggttcagta 20

<210> 8
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 <212> DNA
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<400> 8
 gtgatacttg agcaatatct tcagc 25

<210> 9
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 caaatccaca taatccacgc tgaaatc 27

<210> 10
 <211> 195
 <212> PRT
 <213> H. pylori

<400> 10
 Met Leu Gly Leu Val Leu Leu Tyr Val Gly Ile Val Leu Ile Ser Asn
 1 5 10 15
 Gly Ile Cys Gly Leu Thr Lys Val Asp Pro Lys Ser Thr Ala Val Met
 20 25 30
 Asn Phe Phe Val Gly Gly Leu Ser Ile Ile Cys Asn Val Val Val Ile
 35 40 45
 Thr Tyr Ser Ala Leu Asn Pro Thr Ala Pro Val Glu Gly Ala Glu Asp
 50 55 60
 Ile Ala Gln Val Ser His His Leu Thr Asn Phe Tyr Gly Pro Ala Thr
 65 70 75 80
 Gly Leu Leu Phe Gly Phe Thr Tyr Leu Tyr Ala Ala Ile Asn His Thr
 85 90 95
 Phe Gly Leu Asp Trp Arg Pro Tyr Ser Trp Tyr Ser Leu Phe Val Ala
 100 105 110
 Ile Asn Thr Ile Pro Ala Ala Ile Leu Ser His Tyr Ser Asp Met Leu
 115 120 125
 Asp Asp His Lys Val Leu Gly Ile Thr Glu Gly Asp Trp Trp Ala Ile
 130 135 140
 Ile Trp Leu Ala Trp Gly Val Leu Trp Leu Thr Ala Phe Ile Glu Asn
 145 150 155 160

Ile Leu Lys Ile Pro Leu Gly Lys Phe Thr Pro Trp Leu Ala Ile Ile
165 170 175

Glu Gly Ile Leu Thr Ala Trp Ile Pro Ala Trp Leu Leu Phe Ile Gln
180 185 190

His Trp Val
195

<210> 11
<211> 196
<212> PRT
<213> H. felis

<400> 11
Met Leu Gly Leu Val Leu Leu Tyr Val Ala Val Val Leu Ile Ser Asn
1 5 10 15

Gly Val Ser Gly Leu Ala Asn Val Asp Ala Lys Ser Lys Ala Ile Met
20 25 30

Asn Tyr Phe Val Gly Gly Asp Ser Pro Leu Cys Val Met Trp Ser Leu
35 40 45

Ser Ser Tyr Ser Thr Phe His Pro Thr Pro Pro Ala Thr Gly Pro Glu
50 55 60

Asp Val Ala Gln Val Ser Gln His Leu Ile Asn Phe Tyr Gly Pro Ala
65 70 75 80

Thr Gly Leu Leu Phe Gly Phe Thr Tyr Leu Tyr Ala Ala Ile Asn Asn
85 90 95

Thr Phe Asn Leu Asp Trp Lys Pro Tyr Gly Trp Tyr Cys Leu Phe Val
100 105 110

Thr Ile Asn Thr Ile Pro Ala Ala Ile Leu Ser His Tyr Ser Asp Ala
115 120 125

Leu Asp Asp His Arg Leu Leu Gly Ile Thr Glu Gly Asp Trp Trp Ala
130 135 140

Phe Ile Trp Leu Ala Trp Gly Val Leu Trp Leu Thr Gly Trp Ile Glu
145 150 155 160

Cys Ala Leu Gly Lys Ser Leu Gly Lys Phe Val Pro Trp Leu Ala Ile
165 170 175

Val Glu Gly Val Ile Thr Ala Trp Ile Pro Ala Trp Leu Leu Phe Ile
180 185 190

Gln His Trp Ser
195

<210> 12
<211> 46
<212> PRT
<213> Lactobacillus fermentum

<400> 12

Ile Leu Trp Leu Thr Gly Phe Leu Thr Asn Asn Leu Lys Met Asn Leu
1 5 10 15

Gly Lys Phe Pro Gly Tyr Leu Gly Ile Ile Glu Gly Ile Cys Thr Ala
20 25 30

Trp Ile Pro Gly Phe Leu Met Leu Leu Asn Tyr Trp Pro Asn
35 40 45

<210> 13

<211> 129

<212> PRT

<213> Streptococcus salivarius

<400> 13

Ile Leu Asn Ile Ile Val Ile Ala Tyr Gly Ala Cys Thr Gly Gln Gly
1 5 10 15

Ala Glu Trp Phe Tyr Gly Ser Ala Thr Gly Leu Leu Phe Ala Phe Thr
20 25 30

Tyr Leu Tyr Ser Ala Ile Asn Thr Ile Phe Asp Phe Asp Gln Arg Leu
35 40 45

Tyr Gly Trp Phe Ser Leu Phe Val Ala Ile Asn Thr Leu Pro Ala Gly
50 55 60

Ile Leu Cys Leu Thr Ser Gly Tyr Gly Gly Asn Ala Trp Tyr Gly Ile
65 70 75 80

Ile Trp Phe Leu Trp Gly Ile Leu Trp Leu Thr Ala Phe Ile Glu Ile
85 90 95

Asn Leu Lys Lys Asn Leu Gly Lys Phe Val Pro Tyr Leu Ala Ile Phe
100 105 110

Glu Gly Ile Val Thr Ala Trp Ile Pro Gly Leu Leu Met Leu Trp Gly
115 120 125

Lys

<210> 14

<211> 213

<212> PRT

<213> Myco. smegmatis

<400> 14

Met Gly Gly Val Gly Leu Phe Tyr Val Gly Ala Val Leu Ile Ile Asp
1 5 10 15

Gly Leu Met Leu Leu Gly Arg Ile Ser Pro Arg Gly Ala Thr Pro Leu
20 25 30

Asn Phe Phe Val Gly Gly Leu Gln Val Val Thr Pro Thr Val Leu Ile
35 40 45

Leu Gln Ser Gly Gly Asp Ala Ala Val Ile Phe Ala Ala Ser Gly Leu
 50 55 60
 Tyr Leu Phe Gly Phe Thr Tyr Leu Trp Val Ala Ile Asn Asn Val Thr
 65 70 75 80
 Asp Trp Asp Gly Glu Gly Leu Gly Trp Phe Ser Leu Phe Val Ala Ile
 85 90 95
 Ala Ala Leu Gly Tyr Ser Trp His Ala Phe Thr Ala Glu Ala Asp Pro
 100 105 110
 Ala Phe Gly Val Ile Trp Leu Leu Trp Ala Val Leu Trp Phe Met Leu
 115 120 125
 Phe Leu Leu Leu Gly Leu Gly His Asp Ala Leu Gly Pro Ala Val Gly
 130 135 140
 Phe Val Ala Val Ala Glu Gly Val Ile Thr Ala Ala Val Pro Ala Phe
 145 150 155 160
 Leu Ile Val Ser Gly Asn Trp Glu Thr Gly Pro Leu Pro Ala Ala Val
 165 170 175
 Ile Ala Val Ile Gly Phe Ala Ala Val Val Leu Ala Tyr Pro Ile Gly
 180 185 190
 Arg Arg Leu Ala Ala Pro Ser Val Thr Asn Pro Pro Pro Ala Ala Leu
 195 200 205
 Ala Ala Thr Thr Arg
 210

<210> 15
 <211> 206
 <212> PRT
 <213> Rhodococcus sp.

<400> 15
 Met Gly Ser Val Gly Leu Leu Tyr Val Gly Ala Val Leu Phe Val Asn
 1 5 10 15
 Gly Leu Met Leu Leu Gly Thr Val Pro Val Arg Ser Ala Ser Val Leu
 20 25 30
 Asn Leu Phe Val Gly Ala Leu Gln Cys Val Val Pro Thr Val Met Leu
 35 40 45
 Ile Gln Ala Gln Gly Asp Ser Ser Ala Val Leu Ala Ala Ser Gly Leu
 50 55 60
 Tyr Leu Phe Gly Phe Thr Tyr Leu Tyr Val Gly Ile Ser Asn Leu Ala
 65 70 75 80
 Gly Phe Glu Pro Glu Gly Ile Gly Trp Phe Ser Leu Phe Val Ala Cys
 85 90 95
 Ala Ala Leu Val Tyr Ser Phe Leu Ser Phe Thr Val Ser Asn Asp Pro
 100 105 110

Val Phe Gly Val Ile Trp Leu Ala Trp Ala Ala Leu Trp Thr Leu Phe
 115 120 125
 Phe Leu Val Leu Gly Leu Gly Arg Glu Asn Leu Ser Arg Phe Thr Gly
 130 135 140
 Trp Ala Ala Ile Leu Leu Ser Gln Pro Thr Cys Thr Val Pro Ala Phe
 145 150 155 160
 Leu Ile Leu Thr Gly Asn Phe His Thr Thr Pro Ala Val Ala Ala Gly
 165 170 175
 Trp Ala Gly Ala Leu Leu Val Leu Leu Gly Leu Ala Lys Ile Leu Ala
 180 185 190
 Ala Pro Lys Ala Ala Val Pro Gln Pro Arg Pro Val Phe Asn
 195 200 205

<210> 16
 <211> 171
 <212> PRT
 <213> P. aeruginosa

<400> 16
 Met Leu Gly Leu Val Leu Leu Tyr Val Gly Ala Val Leu Phe Leu Asn
 1 5 10 15
 Ala Val Trp Leu Leu Gly Lys Ile Ser Gly Arg Glu Val Ala Val Ile
 20 25 30
 Asn Phe Leu Val Gly Val Leu Ser Ala Cys Val Ala Phe Tyr Leu Ile
 35 40 45
 Phe Ser Ala Ala Ala Gly Gln Gly Ser Leu Lys Ala Gly Ala Leu Thr
 50 55 60
 Leu Leu Phe Ala Phe Thr Tyr Leu Trp Val Ala Ala Asn Gln Phe Leu
 65 70 75 80
 Glu Val Asp Gly Lys Gly Leu Gly Trp Phe Cys Leu Phe Val Ser Leu
 85 90 95
 Thr Ala Cys Thr Val Ala Ile Glu Ser Phe Ala Gly Ala Ser Gly Pro
 100 105 110
 Phe Gly Leu Trp Asn Ala Val Asn Trp Thr Val Trp Ala Leu Leu Trp
 115 120 125
 Phe Cys Phe Phe Leu Leu Leu Gly Leu Ser Arg Gly Ile Gln Lys Pro
 130 135 140
 Val Ala Tyr Leu Thr Leu Ala Ser Ala Ile Phe Thr Ala Trp Leu Pro
 145 150 155 160
 Gly Leu Leu Leu Leu Gly Gln Val Leu Lys Ala
 165 170